

# 2

Science Standard  
2.2.c. and 2.2.d.

Supports  
English-Language  
Arts Standard  
Reading 2.2.4.



## Supporting Materials California Education and the Environment Initiative

**DRAFT**  
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# Alike and Different

# **DRAFT**

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## **California Education and the Environment Initiative**

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**Assessments**

Alike and Different—Traditional Unit Assessment Master . . . . . 3

Elephant Seals and Pipefish—Alternative Unit Assessment Master . . . . . 5

**Lesson 1   Adapted to Woodlands**

**Activity Masters**

Inherited Traits . . . . . 7

**Visual Aids**

**1**   White Ermine in Snow and White Ermine After Early Snowmelt. . . . . 9

**2**   Mule Deer Fawn Hidden Under Tree and Without Tree or Grass Cover. . 10

**Lesson 2   Traits for Survival**

**Activity Masters**

Mule Deer Survival Traits. . . . . 11

**Visual Aids**

**3**   Mule Deer Buck. . . . . 13

**Lesson 3   Animals That Blend with Their Background**

**Activity Masters**

Traits for Fitting into an Environment. . . . . 14

**Visual Aids**

**4**   Brown Ermine in Woodland . . . . . 15

## Lesson 4 Alike but Different

### Activity Masters

Counting Beans .....	16
Variations in Other Populations .....	18

### Visual Aids

5 Color Variation in English Cocker Spaniels .....	19
6 Spaniels with Solid Color or Patches .....	20
7 Spaniels with Solid Color or Patches .....	21

## Lesson 5 Habitat Change and Variations within Populations

### Activity Masters

Taking Care of Our Own .....	22
------------------------------	----

### Visual Aids

8 Healthy Riparian Habitat .....	23
9 Disturbed Riparian Habitat .....	24
10 Cowbird .....	25
11 How Red-winged Blackbirds Treat Cowbird Eggs .....	26
12 How Yellow Warblers Treat Cowbird Eggs .....	27

Name: \_\_\_\_\_

**Multiple Choice:** Find the best answer and circle the letter in front of that answer.

1. Ermine inherit traits such as \_\_\_\_\_ from their parents.
  - a. large feet
  - b. sharp teeth
  - c. white spots
  
2. \_\_\_\_\_ is a trait that helps a cowbird hatchling survive.
  - a. being fuzzy
  - b. begging loudly
  - c. singing
  
3. Mule deer fawns have \_\_\_\_\_ to help them hide.
  - a. antlers
  - b. long ears
  - c. white spots
  
4. English cocker spaniels \_\_\_\_\_ in color.
  - a. vary
  - b. adapt
  - c. change
  
5. A white ermine would be easy to \_\_\_\_\_ in summer.
  - a. smell
  - b. hear
  - c. see

Name: \_\_\_\_\_

6. Some red-winged blackbirds \_\_\_\_\_ cowbird eggs.
- a. reject
  - b. eat
  - c. carry
7. If snow melts earlier in winter, an ermine may turn\_\_\_\_\_.
- a. white earlier
  - b. brown earlier
  - c. white later
8. When humans cut down trees, fawns with white spots may be \_\_\_\_\_.
- a. harder to see
  - b. easier to see
  - c. easier to smell

Name: \_\_\_\_\_

1. Look at the pictures below. There is an adult seal. There is a seal pup. Circle four things on the seal pup it inherited from its parents.



*Adult elephant seal*



*Elephant seal pup*

2. Look at the color of the elephant seal pup. The little pups live on the beach. How does their color help them? Underline the answer.

Easy to swim

Blend with sand color



Name: \_\_\_\_\_

3. Look at the pipefish below. They live in Monterey Bay. They look alike in most ways. In what ways do they look different?

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*Pipefish in eelgrass*



*Pipefish in kelp*

4. What color for pipefish is best in the kelp?

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5. What color for pipefish is best in the eelgrass?

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---



Name: \_\_\_\_\_

1. Fill in the blanks using each word one time. (1 point each)

bills	ears	claws	color	big
parents	sharp	spots	wings	traits

Animal babies look like their \_\_\_\_\_ in many ways. Why?  
Animal parents pass on \_\_\_\_\_ to their offspring.

Ermine babies get \_\_\_\_\_ teeth and \_\_\_\_\_  
from their parents. They get a coat that changes \_\_\_\_\_, too.

Mule deer give their fawn big \_\_\_\_\_,  
\_\_\_\_\_ eyes, and white \_\_\_\_\_.

Cowbirds give their offspring short \_\_\_\_\_ and long  
\_\_\_\_\_.

2. Fill in the blanks using each word one time. (1 point each)

eat	run	kick	hide	meeting
louder	high	other	babies	prey

Animal \_\_\_\_\_ act like their parents in many ways. These  
traits are passed down.

Young ermine \_\_\_\_\_ mice and rabbits. They sneak up  
on \_\_\_\_\_. They \_\_\_\_\_ from predators.

Name: \_\_\_\_\_

Mule deer fawn grow up to \_\_\_\_\_ fast and leap  
\_\_\_\_\_, and \_\_\_\_\_ hard.

Cowbird hatchlings beg for food \_\_\_\_\_ than other  
hatchlings. They grow up without \_\_\_\_\_ their parents.  
Females lay eggs in \_\_\_\_\_ birds' nests.

3. Fill in the blanks using each word one time. (1 point each)

food	camouflage	host	survive	predators
teeth	offspring	climb	parents	escape

White spots \_\_\_\_\_ fawn, helping them hide from  
\_\_\_\_\_.

Animals \_\_\_\_\_ trees to \_\_\_\_\_ from  
predators.

Sharp \_\_\_\_\_ help animals get \_\_\_\_\_.

Begging loudly gets cowbird hatchlings food from \_\_\_\_\_  
parents.

All these traits help animals \_\_\_\_\_ to become  
\_\_\_\_\_.

Parents pass their traits to their \_\_\_\_\_.

## White Ermine





## Mule Deer Fawn

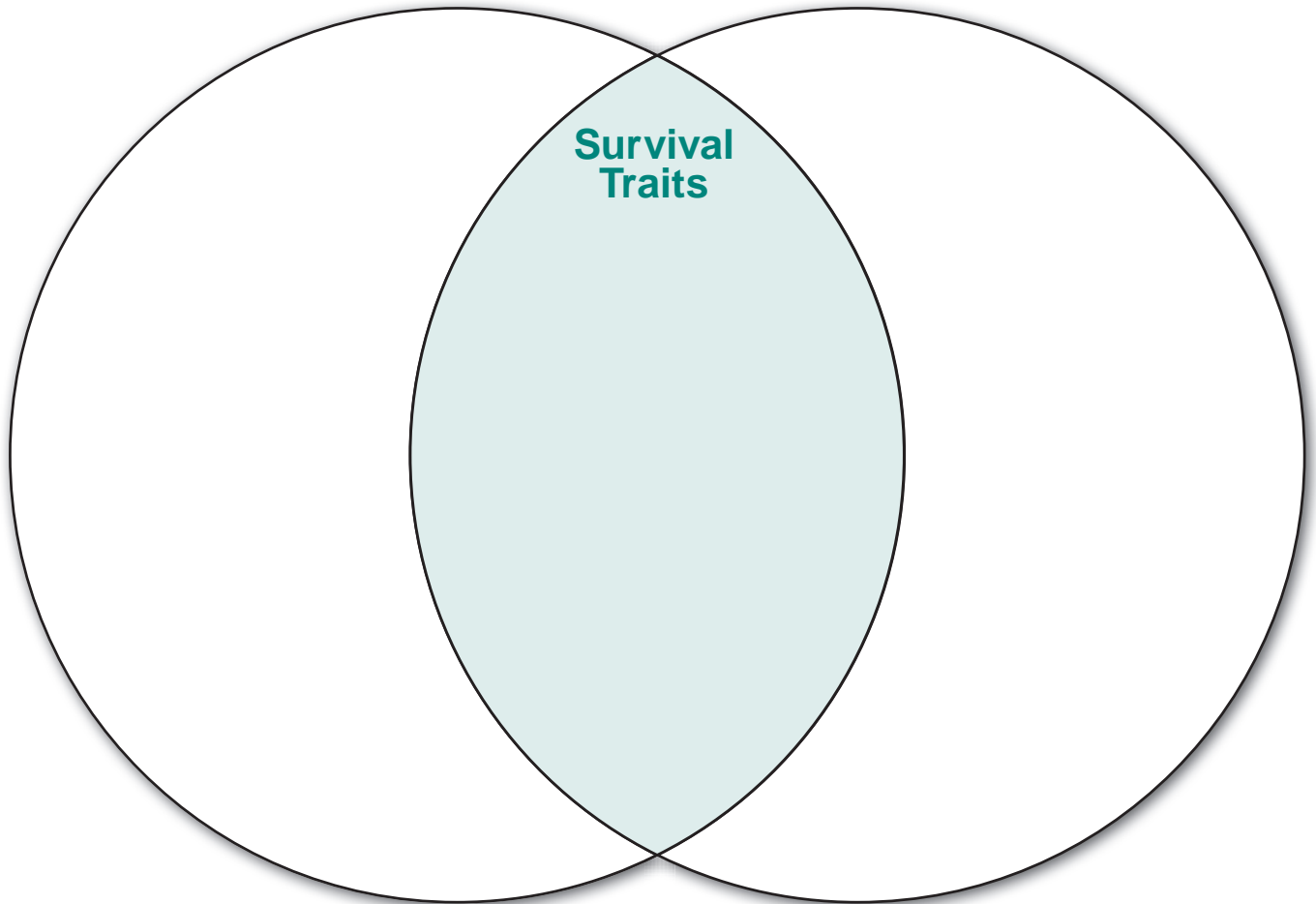




Name: \_\_\_\_\_

**Fawn Traits**

**Adult Deer Traits**



**Traits Mule Deer Need to Survive**

How do a fawn's white spots help it to survive?

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How do sharp hooves help adult mule deer to survive?

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## Mule Deer Survival Traits

Lesson 2 Activity Master | page 2 of 2

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Name: \_\_\_\_\_

Why are mule deer's long legs important?

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How does brown fur help an adult mule deer?

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Why are big eyes important to mule deer's survival?

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## Mule Deer Buck



Name: \_\_\_\_\_

**Short Answer:** Answer these questions in complete sentences.  
(5 points each)

1. What helps a fawn survive?

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2. How does an ermine blend in with snow?

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3. What is it called when an animal's colors make it hard to see?

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4. Why do traits get passed on?

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## Brown Ermine in Woodland



Name: \_\_\_\_\_

A black bean is like the trait for a solid color.

A speckled bean is like the trait for patches.

One black and one speckled bean is like a solid spaniel parent with both traits.

When you draw two beans from the bag, it is like a puppy that gets one trait from each parent.

When you draw two beans, you can get traits for a dog that is a solid color or one that has patches.

If you draw two black beans or one black and one speckled bean, the puppy would be a solid color.

If you draw two speckled beans, the puppy would have patches.

**Directions:** With your partner, take turns drawing beans and putting a check under the correct heading.

Bean Draw	2 black beans	1 black bean and 1 speckled bean	2 speckled beans
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			

## Counting Beans

Lesson 4 Activity Master | page 2 of 2

Name: \_\_\_\_\_

Bean Draw	2 black beans	1 black bean and 1 speckled bean	2 speckled beans
12			
13			
14			
15			
16			
17			
18			
19			
20			

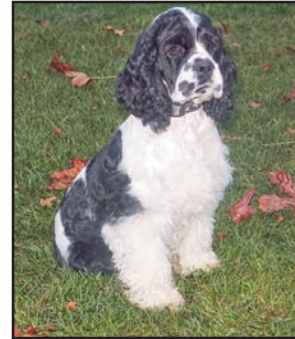
1. How many draws were 2 black beans? \_\_\_\_\_
2. Will the puppies have a solid color or patches? \_\_\_\_\_
3. How many draws were 1 black and 1 speckled bean? \_\_\_\_\_
4. Will these puppies have a solid color or patches? \_\_\_\_\_
5. How many draws were 2 speckled beans? \_\_\_\_\_
6. Will these puppies have a solid color or patches? \_\_\_\_\_



## Variations in Other Populations

### Lesson 4 Activity Master

Name: \_\_\_\_\_



1. What variation do you see among these American cocker spaniels?

\_\_\_\_\_



2. What variation do you see between these mule deer does?

\_\_\_\_\_



3. What variation do you see among these cowbird eggs?

\_\_\_\_\_



## Color Variation in English Cocker Spaniels



This breed of dog comes in lots of colors.

These dogs have long ears.

They like to hunt birds.

They are medium in size.

American cocker spaniels are smaller.

## Spaniels with Solid Color or Patches



This black father inherited the solid-color trait from both parents.

This black-and-white mother inherited the patches trait from both parents.

All their puppies will inherit one of each trait.

Will they have a solid color or patches?



*All the puppies will be black.*

## Spaniels with Solid Color or Patches



One of these spaniels with a solid-color and patches trait becomes a father. The black mother also inherited one of each trait.

Will their puppies have a solid color or patches?



*Three out of four will inherit the solid-color trait from at least one parent. They will be black.*

*One out of four will inherit the patches or mixed-color trait for patches from both parents. It will have patches.*



Name: \_\_\_\_\_



1. What changes to a host bird's habitat can change what it does with cowbird eggs?

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2. What trait do some birds inherit that is not good for cowbirds?

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3. What are two ways that birds reject cowbirds?

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4. How does this trait help other birds?

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## Healthy Riparian Habitat





## Disturbed Riparian Habitat





## Cowbird





## Cowbird Eggs



Cowbirds and red-winged blackbirds are both in the blackbird family.

Their eggs are the same size. But cowbird eggs have more speckles.

Almost all red-winged blackbirds accept cowbird eggs.

They raise cowbird hatchlings along with their own.

A few red-winged blackbirds inherited a variation.

Some blackbirds reject cowbird eggs.

This lets red-winged blackbirds raise more of their own young.



*Here are three red-winged blackbird eggs and two cowbird eggs. Which is which?*



*Red-winged blackbird hatchling*



*Cowbird hatchling*

## Cowbird Eggs



Cowbird eggs are bigger than yellow warbler eggs.

Cowbird hatchlings are even bigger than the yellow warbler parents!

Most yellow warblers will raise cowbird hatchlings as their own.

A few yellow warblers inherit a variation.

These warblers bury the cowbird egg with weeds and grass.

When they sit on their nests, they do not keep the cowbird egg warm.

The cowbird eggs do not hatch.

Warblers with this variation may raise more offspring.

They may pass the variation onto their offspring.

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